

**BY ORDER OF THE CHIEF,
NATIONAL GUARD BUREAU**



MANPOWER STANDARD 2333SO

1 DECEMBER 2004

Manpower Standard

***ELECTRONICS COUNTER MEASURES
EC-130E (RIVET RIDER)***

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This Air National Guard Manpower Standard (ANGMS) quantifies the manpower required to accomplish the tasks described in the process oriented description (POD) for varying levels of workload in the Electronic Countermeasures EC-130E (Rivet Rider). This ANGMS applies to the Electronic Countermeasures EC-130E, Rivet Rider mission only, at the 193rd SOW, PA. This standard applies to peacetime operations only. The Air National Guard (ANG) is the authority for the approval and publication of ANG Manpower Standards. Air Force (AF) and ANG directives contain policy and procedural guidance for the operation of the Rivet Rider function. This standard was developed in accordance with AF Instruction (AFI) 38-201, *Determining Manpower Requirements*, and AF Manual (AFMAN) 38-208, Volume 1, *Air Force Management Engineering Program (MEP) - Processes*, and AFMAN 38-208, Volume 2, *Air Force Management Engineering Program (MEP) - Quantification Tools*. Send comments and suggested improvements on AF IMT 847, *Recommendation for Change of Publication*, through channels, to ANG, Management Engineering Branch (ANG/XPME/Operating Location TN [OLTN]), 106 Briscoe Drive, McGhee Tyson ANG Base TN 37777-6283.

1. STANDARD DATA:

1.1. Approval Date. 1 December 2004.

1.2. Man-hour Data Source. Operational Audit method (historical record and technical estimate techniques).

1.3. Standard Man-hour Equation. $Y = 262.5 + 2.260X1 + 8.290X2$.

1.4. Workload Factor:

1.4.1. Titles:

1.4.1.1. X1 = A Programmed Flying Hour.

1.4.1.2. X2 = A Primary Aircraft Inventory.

1.4.2. Definition.

1.4.2.1. X1 = Monthly number of flying hours programmed.

1.4.2.2. X2 = Average monthly primary aircraft inventory.

1.4.3. Source.

1.4.3.1. USAF Program Document (PD), Volume II maintained by ANG/XPPI.

1.4.4. Points of Contact:

1.4.4.1. Functional: Lt Col Robert Hoback, ANG/LGY.

1.4.4.2. Manpower: Mr. Steve Griffith, Chief, ANG/XPME, Management Engineering Branch.

2. APPLICATION INSTRUCTIONS:

2.1. Step 1. Man-hour Equation. Apply the man-hour equation in paragraph 1.3., to determine required man-hours.

2.2. Step 2. Man-hour Availability Factor (MAF). Divide the resulting man-hours by the appropriate MAF times the overload factor.

2.3. Step 3. Upper and Lower Extrapolation Limits:

2.3.1. $Y_U = 794.22$

2.3.2. $Y_L = 476.54$

2.4. Step 4. Air Force Specialty Codes (AFSC) Requirement. Use the Manpower Table attachment 3 to determine required AFSCs.

3. STATEMENT OF CONDITIONS. The conditions listed had no affect on the development of this standard: minimum response rates, minimum manpower levels, standardized crew complements, safety considerations, aircraft turn-around time, length of waiting periods, levels of backlog and hours of operation.

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Director, Air National Guard

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 38-201, *Determining Manpower Requirements*

AFMAN) 38-208, Volume 1, *Air Force Management Engineering Program (MEP)-Processes*

AFMAN 38-208, Volume 2, *Air Force Management Engineering Program (MEP) - Quantification Tools*

Abbreviations and Acronyms

AF -- Air Force

AFI -- Air Force Instruction

AFSC -- Air Force Specialty Codes

ANG -- Air National Guard

ANGI -- Air National Guard Instruction

ANGMS -- Air National Guard Manpower Standard

APU --Auxiliary Power Unit

COMSEC -- Communication Security

CTK -- Composite Tool Kit

ECM -- Electronic Countermeasures

FMB -- Financial Management Board

MEP -- Management Engineering Program

OPSEC -- Operation Security

POD -- Process Oriented Description

TCTO -- Time Compliance Technical Order

UTA -- Unit Training Assembly

Terms

Air National Guard Manpower Standard (ANGMS)--A numbered, specialized publication that quantifies manpower requirements for a work center. Also includes approved variances. See AFI 38-201.

Man-hour--A unit of measuring work. It is equivalent to one person working at a normal pace for 60 minutes, two people working at a normal pace for 30 minutes, or a similar combination of people working at a normal pace for a period of time equal to 60 minutes.

Manpower Standard--The basic tool used to determine the minimum level of manpower required to support a function. It is a quantitative expression that represents a work center's man-hour requirements in response to varying levels of workload.

Process Oriented Description--A format that shows work center responsibilities structured for easy measurement of work categories, tasks and subtasks.

ATTACHMENT 2

PROCESS ORIENTED DESCRIPTION
ELECTRONIC COUNTERMEASURES

TABLE A2.1. Listing of Functional Processes.

TASK NO.	PROCESS
1.	ON EQUIPMENT MAINTENANCE.
1.1.	MAINTAINS AIRCRAFT SYSTEM AND COMPONENT PART. Inspects, troubleshoots, and repairs on-equipment.
1.2.	UPLOADS AND DOWNLOADS CHAFF AND FLARE MUNITIONS.
1.3.	PERFORMS INSPECTION.
1.3.1.	PERFORMS SPECIAL INSPECTION.
1.3.2.	PERFORMS PHASE INSPECTION.
1.3.3.	PERFORMS POD INSPECTION.
1.3.4.	PERFORMS STATION INSPECTION.
1.3.5.	PERFORMS ISOCHRONAL INSPECTION.
1.3.5.1.	PERFORMS MAJOR ISOCHRONAL INSPECTION.
1.3.5.2.	PERFORMS FIRST ISOCHRONAL INSPECTION.
1.3.5.3.	PERFORMS SECOND ISOCHRONAL INSPECTION.
1.3.5.4.	PERFORMS THIRD ISOCHRONAL INSPECTION.
1.4.	CONFIGURES ELECTRONIC COUNTERMEASURES (ECM) SYSTEM. Configures ECM System to meet mission requirement by reprogramming the equipment specified in the PODs.
2.	OFF EQUIPMENT MAINTENANCE.
2.1.	MAINTAINS AIRCRAFT SYSTEM AND ACOMPONENT PART. Inspects troubleshoot and repairs off-equipment.
2.2.	MAINTAINS COUNTERMEASURE SYSTEM MOCK-UP.
3.	ECM REPROGRAMMING. Performs ECM reprogramming on the equipment. Supports exercises and real-world contingencies in accordance with applicable data.
3.1.	REPROGRAMS PACER WARE ACTION.
3.2.	REPROGRAMS SERENE BYTE EXERCISE.

TASK NO.	PROCESS
4.	MAINTAINS SHOP SECURITY PROCEDURES. Controls and secures OPSEC and COMSEC material to include computer security.
5.	CORROSION CONTROL. Performs cleaning to remove contamination and corrosion from the equipment specified in the Pods.
6.	DEBRIEFING. Attends debriefing.
7.	TIME COMPLIANCE TECHNICAL ORDER (TCTO). Performs maintenance required on/off the aircraft in accordance with applicable TCTO and completes documentation.
8.	PERIODIC MAINTENANCE OF AVIONICS AND ECM POD EQUIPMENT IN BASE SUPPLY. Performs periodic functional check or calibration of equipment stored in Base Supply to maintain shelf life and ensure serviceability before use.
9.	GENERAL SHOP SUPPORT. Performs shop support to include local manufacturer item.
10.	CATEGORY II TEST EQUIPMENT. Inspects, troubleshoots, aligns, and calibrates test equipment.
11.	TECHNICAL DATA SUBACCOUNT MAINTENANCE. Orders required technical data, receives and post data, and change to technical order file. Maintains file for serviceability.
12.	BENCH STOCK MAINTENANCE. Inspects, orders, stocks, and issues bench stock.
13.	HAZARDOUS WASTE PROGRAM.
13.1.	PROCESSES HAZARDOUS WASTE. Identifies and labels, contains, and disposes of hazardous waste.
13.2.	MAINTAINS COLLECTION FACILITY. Maintains hazardous waste accumulation point, satellite collection area and container.
13.3.	MAINTAINS PROTECTIVE EQUIPMENT. Inspects and maintenance protective equipment.
14.	AIRCRAFT DOCUMENTATION/CAMS INPUT.
15.	COMPOSITE TOOL KIT (CTK) MAINTENANCE. Performs maintenance on CTK to include scheduling of Precision Measuring Equipment for calibration. Ensures availability and serviceability of part/kit and inventories
16.	CONFIGURES AND RECONFIGURES AIRCRAFT. Configures and reconfigures aircraft to meet mission requirements.
17.	ASSISTANCE. Provides assistance to other maintenance work center in

TASK NO.	PROCESS
	support of direct related tasking to the C-130 mission.
18.	SPECIAL PLANNING FOR SCHEDULING. Performs planning and scheduling tasks associated with preparation for Unit Training Assembly (UTA) workload and mobility requirement.
18.1.	PREPARES FOR UNIT TRAINING ASSEMBLY.
18.2.	PERFORMS MOBILITY PREPARATION.
18.3.	PREPARES AND/OR PERFORMS OTHR SPECIAL PROGRAM.
19.	TRAVEL. Covers time to get you to and from C-130 mission related trips off-base to attend meetings, conferences, workshops, and briefings.
20.	INDIRECT: Indirect work involves those tasks that are not readily identifiable with the work center's specific product or service. The major categories of standard indirect work are Supervision, Administration, Meeting, Training, Supply, Equipment Maintenance, and Cleanup

Attachment 3**MANPOWER TABLE****Table A3.1. Standard Manpower Table.**

Work Center	Air Force Specialty Title	AFSC	Manpower Requirement							
Electronic Countermeasures	Aerospace Maintenance	2A5XX	2							
Total			2							

Note. AFSCs may be adjusted at the discretion of the Commander.